

AMENDED IN ASSEMBLY JUNE 1, 2007

CALIFORNIA LEGISLATURE—2007–08 REGULAR SESSION

ASSEMBLY BILL

No. 1077

**Introduced by Assembly Members Lieber and DeSaulnier
(Principal coauthor: Assembly Member Huffman)
(Coauthor: Assembly Member Lieu)**

February 23, 2007

An act to add Article 5.5 (commencing with Section 43850) to Chapter 4 of Part 5 of Division 26 of the Health and Safety Code, relating to air pollution.

LEGISLATIVE COUNSEL'S DIGEST

AB 1077, as amended, Lieber. State Air Resources Board: plug-in hybrid electric vehicles.

(1) Existing law grants to the State Air Resources Board primary authority for the control of air pollution from vehicular sources. Existing law authorizes the state board to adopt and implement motor vehicle emissions standards and motor vehicle specifications.

This bill would enact the California Plug-In Hybrid Electric Vehicle Leadership Act of 2007. The bill would establish a 19-member California Plug-In Hybrid Electric Vehicle Coordinating Council to meet and be an ongoing focal point for coordination and collaboration between entities and organizations working on plug-in hybrid electric vehicle-related activities, identify existing and potential barriers to the successful development and commercialization of plug-in hybrid vehicles, assess current and proposed activities related to plug-in hybrid vehicles, and describe the extent to which these will address identified barriers, recommend and prioritize additional work, activities, research, development and demonstration, and programs that will contribute to

the resolution of identified barriers. The bill would make it the goal of the council to have at a minimum 1,000,000 plug-in hybrid vehicles on California roads by 2015. The bill would require the council to consider, and recommend, certain financial and regulatory incentives to promote the manufacture and sale of plug-in hybrid vehicles. The bill would require the council to consider, and recommend, a multifuel approach. ~~The bill would require the council to develop, and make recommendations on the implementation of, a public information and education program.~~

The bill would require the state board, on or before January 1, 2009, in conjunction with specified other entities, to develop certification testing protocols for emissions and fuel consumption for the different types of plug-in hybrid vehicles.

The bill would require the Department of General Services, on or before October 1, 2008, to identify the percentage or number of plug-in hybrid vehicles that could be reasonably added to the state vehicle fleet in the future, ~~to streamline its procurement procedures for plug-in hybrid vehicles for state and local agencies, and to develop mechanisms and incentives to encourage local governments to identify the number and percentage of plug-in hybrid vehicles that could reasonably be added to local fleets, and to procure those vehicles.~~

The bill would require the Public Utilities Commission, on or before January 1, 2009, ~~in conjunction with electrical and gas corporations, to develop and establish~~ *to direct electrical corporations to propose optional off-peak electrical rates for plug-in hybrid vehicles, or discounts in the cost of electric service for plug-in hybrid vehicles the use of other optional rate structures, equipment, and techniques to shift plug-in hybrid vehicle charging to off-peak periods, or other incentives.* The bill would require the commission to consider the establishment of utility testing and demonstration programs as it determines to be necessary to achieve specified objectives. The commission would also be required to consider ~~the establishment of utility~~ *authorizing electrical corporations to establish* programs to provide certain hybrid-related information and assistance to utility customers.

The bill would authorize local publicly owned electric utilities to develop and establish specified utility programs involving plug-in hybrid vehicles.

(2) The Warren-Alquist State Energy Resources Conservation and Development Act establishes the State Energy Resources Conservation and Development Commission (Energy Commission) and requires it

to develop, implement, and administer the Public Interest Research, Development, and Demonstration Program.

The bill would require the Energy Commission to award program funds to the council in accordance with that act to reimburse the council for costs the council incurs under the bill.

Vote: majority. Appropriation: no. Fiscal committee: yes.

State-mandated local program: no.

The people of the State of California do enact as follows:

1 SECTION 1. The Legislature finds and declares all of the
2 following:

3 (a) Plug-in hybrid electric vehicles (PHEVs or plug-in hybrids)
4 are a type of advanced gasoline/biofuel-electric hybrid vehicle that
5 are being developed, demonstrated, and tested in California and
6 elsewhere. Plug-in hybrids can achieve even greater environmental
7 and fuel-saving benefits than conventional hybrids. Plug-in hybrid
8 electric vehicle technology is rapidly developing and can be applied
9 not only in light-duty vehicles, but in medium-duty and heavy-duty
10 vehicles, and in nonroad applications.

11 (b) Plug-in hybrid light-duty vehicles have been demonstrated
12 that achieve in excess of 100 miles per gallon of gasoline and can
13 reduce gasoline use by 60 to 75 percent in comparison to today's
14 typical new cars or sport-utility vehicles, and by 45 to 65 percent
15 in comparison to today's best conventional hybrid vehicles.

16 (c) The transportation sector is more than 95 percent dependent
17 upon a single fuel source, petroleum, and over 60 percent of our
18 national petroleum consumption comes from foreign sources,
19 making this nation extremely vulnerable to petroleum price and
20 supply disruptions.

21 (d) California has adopted goals for increasing the use of
22 nonpetroleum fuels, including electricity, biofuels, and hydrogen,
23 to 20 percent of on-road fuel consumption by 2020, and 30 percent
24 by 2030.

25 (e) Plug-in hybrids may save state consumers money by
26 providing more fuel-efficient vehicles and reduced fuel cost by
27 using electricity for vehicle propulsion, at an equivalent of less
28 than one dollar (\$1) per gallon of gasoline, given current off-peak
29 electricity prices.

1 (f) Plug-in hybrids may reduce emissions of greenhouse gases
2 by 50 to 60 percent in comparison to today's typical new cars or
3 sport-utility vehicles, and by 30 to 45 percent in comparison to
4 today's most efficient conventional hybrid vehicles, and therefore
5 can provide significant help in achieving California's reduction
6 targets for emissions of greenhouse gases.

7 (g) Plug-in hybrids may reduce criteria air pollutants by as much
8 as 45 to 60 percent in comparison to today's new midsize cars or
9 sport-utility vehicles, and as much as 35 to 50 percent in
10 comparison to today's most efficient conventional hybrid vehicles.

11 (h) California has a significant potential for excess electricity
12 generation capacity during overnight and off-peak periods,
13 including renewable electricity such as wind power that is
14 predominately generated at night, allowing millions of plug-in
15 hybrids to charge during these periods when electricity prices are
16 low, and with minimal adverse environmental impacts. Moreover,
17 even under a worst-case peak-charging scenario, researchers at
18 the University of California, Berkeley, estimate that one million
19 compact plug-in hybrids on California roads would not significantly
20 impact peak loads. Many more times this number of vehicles could
21 be charged during off-peak periods without the need for new
22 generation.

23 (i) California's electricity generation mix is already one of the
24 cleanest in the nation, and the state has taken additional steps to
25 make it even cleaner, including new requirements that 20 percent
26 of all electricity generation come from renewable sources by 2010,
27 and has enacted legislation requiring that all new generation
28 sources have greenhouse gas emissions no greater than the level
29 of a combined-cycle natural gas-fired power plant.

30 (j) Infrastructure is already in place for plug-in hybrids, which
31 can be recharged using standard household electrical circuits and
32 current, requiring no deployment of new refueling or recharging
33 infrastructure.

34 (k) Plug-in hybrid vehicles could also use biofuels such as
35 ethanol or biodiesel, helping achieve even greater fuel economy
36 and diversity.

37 (l) The California Hydrogen Highway Blueprint Plan identified
38 plug-in hybrid vehicles as a "bridging technology" to fuel cell
39 vehicles, which can provide near-term environmental benefits to

1 Californians, while at the same time reducing the cost of similar
2 electric-drive components used in future fuel cell vehicles.

3 (m) The Governor, in Executive Order S-01-07, established a
4 low-carbon fuel standard for transportation fuels with the goal of
5 reducing the carbon intensity of California's transportation fuels
6 by at least 10 percent by 2020. Plug-in hybrid vehicles can play a
7 key role in meeting or exceeding this goal.

8 (n) In January 2007, President George W. Bush issued an
9 executive order that, among other things, requires federal agencies
10 to procure plug-in hybrid vehicles when they are commercially
11 available.

12 (o) California needs new advanced vehicle technologies,
13 including plug-in hybrid vehicles, in the near term, that produce
14 even fewer emissions than today's cleanest gasoline vehicles, and
15 that use cleaner fuels, if we are to meet the state's goals for
16 reducing air pollution, greenhouse gases, and petroleum
17 dependence.

18 (p) Plug-in hybrids also open the door for useful supply
19 diversification between the liquid fuel and power generation
20 sectors.

21 (q) This state can and should assist in the successful
22 development and commercialization of plug-in hybrids in several
23 important ways, in order to accelerate the benefits that these
24 vehicles can provide to all our citizens, including emissions
25 reduction, fuel security, and job creation in this state.

26 (r) It is the intent of the state to undertake a multifaceted effort
27 to support the development and commercial introduction of plug-in
28 hybrid electric vehicles.

29 SEC. 2. Article 5.5 (commencing with Section 43850) is added
30 to Chapter 4 of Part 5 of Division 26 of the Health and Safety
31 Code, to read:

32
33 Article 5.5. Plug-in Hybrid Electric Vehicles
34

35 43850. This article shall be known and may be cited as the
36 California Plug-In Hybrid Electric Vehicle Leadership Act of 2007.

37 43851. As used in this article, the following terms have the
38 following meanings:

39 (a) "Council" means the California Plug-In Hybrid Electric
40 Vehicle Coordinating Council established in Section 43852.

(b) “Energy Commission” means the State Energy Resources Conservation and Development Commission.

(c) “Plug-in hybrid electric vehicle” or “plug-in hybrid vehicle” means a light-duty, medium-duty, or heavy-duty on-road or nonroad vehicle that is propelled by an internal combustion engine or heat engine and an electric motor and energy storage system, using all of the following:

(1) Any combustible fuel.

(2) An onboard, rechargeable storage device used primarily to power transportation, not vehicle peripherals.

(3) A means of using an off-board source of electricity to operate the vehicle in intermittent or continuous all-electric mode.

43852. (a) The 19-member California Plug-In Hybrid Electric Vehicle Coordinating Council is hereby established, with membership as follows:

(1) A member of the Energy Commission, appointed by that commission, who shall act as a co-chair.

(2) A member of the state board, appointed by that state board, who shall act as a co-chair.

(3) A member of the Public Utilities Commission, appointed by that commission.

(4) A representative appointed by each of the following agencies:

(A) The California Environmental Protection Agency.

(B) The Business, Transportation and Housing Agency.

(C) The Department of General Services.

(5) A representative appointed by each of the following entities:

(A) The University of California.

(B) The Senate.

(C) The Assembly.

(D) The California Independent System Operator.

(6) A representative, appointed by the co-chairs of the council through a selection or nomination process to be developed jointly by the Energy Commission and the state board, from each of the following categories:

(A) Appropriate federal agencies and laboratories.

(B) Public and private research organizations.

(C) Automobile manufacturers.

(D) Component manufacturers.

(E) Air quality management districts.

1 (F) Local governments.

2 (G) Municipal and investor-owned utilities.

3 (H) Environmental and other nonprofit groups.

4 (I) Other stakeholders as determined by the co-chairs.

5 43853. The council shall do all of the following:

6 (a) Meet at least twice annually and be an ongoing focal point
7 for coordination and collaboration between the many entities and
8 organizations working on plug-in hybrid electric vehicle-related
9 activities, both within California and outside of the state. The
10 meetings of the council shall be subject to the Bagley-Keene Open
11 Meeting Act (Article 9 (commencing with Section 11120) of
12 Chapter 1 of Part 1 of Division 3 of the Government Code).

13 (b) Identify existing and potential barriers to the successful
14 development and commercialization of plug-in hybrid vehicles.
15 The council shall assess current and proposed activities, research,
16 programs, and other activities related to plug-in hybrid vehicles,
17 and describe the extent to which these will address identified
18 barriers.

19 (c) Recommend and prioritize additional work, activities,
20 research, development and demonstration, and programs that, in
21 the determination of the council, will contribute to the resolution
22 of identified barriers, with particular attention paid to those
23 initiatives which are best suited to state and local agencies. For
24 planning purposes, it shall be the goal of the council to have at a
25 minimum one million plug-in hybrid vehicles on California roads
26 by 2015.

27 (d) Consider, and recommend as appropriate, financial and
28 regulatory incentives for automobile manufacturers and other
29 companies, to encourage them to accelerate the introduction of
30 plug-in hybrid vehicles. The council shall also consider, and
31 recommend as appropriate, financial and nonfinancial incentives
32 to encourage individual consumers and fleet owners to purchase
33 plug-in hybrid vehicles.

34 (e) Consider financial and regulatory incentives to encourage
35 the in-state manufacture of plug-in hybrid vehicles and
36 components. The council shall also consider, and recommend as
37 appropriate, a multifuel approach, including, but not limited to,
38 the integration of E85, hydrogen, natural gas, or other fuels into
39 plug-in hybrid configurations.

1 ~~(f) Develop a public information and education program about~~
2 ~~plug-in hybrid characteristics, benefits to consumers and society;~~
3 ~~safety, costs, and operating and charging procedures. The council~~
4 ~~shall make recommendations on the most effective ways to~~
5 ~~implement the information and education program.~~

6 43854. On or before January 1, 2009, the state board, in
7 conjunction with other applicable state and federal agencies,
8 automobile manufacturers and nonprofit research institutions, shall
9 develop certification testing protocols for emissions, including
10 both criteria pollutants and greenhouse gases, and fuel consumption
11 for the different types of plug-in hybrid vehicles.

12 ~~43855. The Department of General Services shall do all of the~~
13 ~~following:~~

14 ~~(a) On or before October 1, 2008, identify the percentage or~~
15 43855. *On or before October 1, 2008, the Department of*
16 *General Services shall identify the percentage or number of plug-in*
17 *hybrid vehicles that, in the determination of that department, could*
18 *be reasonably added to the state vehicle fleet in the future when*
19 *such vehicles become available, taking into consideration the*
20 *benefits of reducing greenhouse gas and other vehicle emissions.*

21 ~~(b) Streamline its procurement procedures for plug-in hybrid~~
22 ~~vehicles for state and local agencies, including pooled purchasing~~
23 ~~opportunities.~~

24 ~~(c) Develop mechanisms and incentives to encourage local~~
25 ~~governments to identify the number and percentage of plug-in~~
26 ~~hybrid vehicles that could reasonably be added to local fleets, and~~
27 ~~to procure those vehicles.~~

28 43856. (a) On or before January 1, 2009, the Public Utilities
29 Commission, in conjunction with electrical and gas corporations,
30 shall develop and establish optional off-peak electrical rates for
31 plug-in hybrid vehicles, or discounts in the cost of electric service
32 for plug-in hybrid vehicles, taking into consideration the reduction
33 *Commission shall direct electrical corporations to propose optional*
34 *off-peak electrical rates for plug-in hybrid vehicles, the use of*
35 *other optional rate structures, equipment, and techniques to shift*
36 *plug-in hybrid vehicle charging to off-peak periods, or other*
37 *incentives, taking into consideration the reduction in greenhouse*
38 *gas emissions and other benefits to California ratepayers and*
39 *citizens as specified in Sections 740.8 and 451 of the Public*
40 *Utilities Code.*

(b) The Public Utilities Commission shall also do all of the following:

(1) Give additional consideration to possible linkage of plug-in hybrid vehicles to nighttime peaking renewable energy sources, including, but not limited to, wind power.

(2) Consider the establishment of utility testing and demonstration programs as it determines to be necessary to do any of the following:

(A) Evaluate the impacts of plug-in hybrid vehicles on utility systems.

(B) Encourage load management and energy efficiency.

(C) Conduct information and education activities.

(D) Maximize economic and environmental benefits to ratepayers.

(3) The Public Utilities Commission shall also consider ~~the establishment of utility~~ *authorizing electrical corporations to establish* programs to provide information and assistance to utility customers that may be considering the choice of electric transportation and goods-movement technologies.

43857. Local publicly owned electric utilities, as defined in Section 9604 of the Public Utilities Code, may develop and establish any of the following:

(a) Optional off-peak electrical rates for plug-in hybrid vehicles.

~~(b) Discounts in the cost of electric service for plug-in hybrid vehicles~~

(b) The use of other rate structures, equipment, and techniques to shift plug-in hybrid charging to off-peak periods, or other incentives, taking into consideration the reduction in greenhouse gas emissions and other benefits to California ratepayers and citizens.

(c) Other utility programs involving plug-in hybrid vehicles.

43858. The Energy Commission shall award funds in accordance with Chapter 7.1 (commencing with Section 25620) of Division 15 of the Public Resources Code to reimburse the council for those costs the council incurs under this article.